United States Steel Corporation
EASTERN STEEL DIVISION
LORAIN-CUYAHOGA WORKS
1807 EAST 28TH STREET
LORAIN, OHIO 44055

D. H. PASS
GENERAL SUPERINTENDENT

April 25, 1984

Mr. Thomas E. Crepeau, Manager
Permits & Manifest Records Section
Division of Solid & Hazardous Waste
Ohio Environmental Protection Agency
361 E. Broad Street
Columbus, Ohio 43216-1049

Re: Permit No. 02-18-0091
Cuyahoga Works

Dear Mr. Crepeau:

In accordance with 3745-66-12(B) of the Ohio hazardous waste rules, enclosed please find amended closure plans for the interim status hazardous waste facilities covered by the above referenced permit. The amended plan is intended to allow for the use of the storage facilities for other purposes following removal of all hazardous wastes and decontamination, rather than immediately dismantling and disposing of the facilities.

If you have any questions, please call.

Sincerely,

General Superintendent

Attachment

cc: Steve Tuckerman
Ohio EPA
Northeast District Office

Closure Plan for Drum Storage Area
Site S-74
EPA I.D. No. OHD 004220810
United States Steel Corporation's
Cuyahoga Plant
Cuyahoga Heights, Ohio

General Facility Description

United States Steel Corporation (USSC) has operated a hazardous waste drum storage area, designated as Site S-74, within the Cuyahoga Plant boundaries from October 1980 to the present. USSC is permitted under interim status regulations, Hazardous Waste Permit No. 02-18-0091, to operate Site S-74 and other hazardous waste facilities within the Cuyahoga Plant. Site S-74 is used for the temporary storage of hazardous waste awaiting shipment for off-site disposal. Only wastes generated within the plant are sent to Site S-74.

Site S-74 consists of a 1,250-square foot area completely surrounded by a fence. Sealed 55-gallon drums are stored upright in a single layer on bare ground within the fenced area. The design capacity of this facility is fifty 55-gallon drums.

Waste Characterization

Containerized leaded steel dust (EPA waste code D008) and on occasion, drums of spent pickle liquor contaminated soils (EPA Waste Code K062) are the only hazardous materials stored within this site. Leaded steel dust is a finely divided powder resulting from steel grinder operations. Spent pickle liquor contaminated soils result from infrequent accidental spills of pickle liquor on the ground.

Maximum Waste Inventory

At any time during the life of the facility, the maximum inventory of waste in storage would be fifty 55-gallon drums based on the physical size of the site.

Normal Operating Procedures

Leaded steel dust, when generated, is loaded into DOT-approved drums at the source of generation and the drums are sealed prior to transporting to Site S-74. Sealed drums are temporarily stored in Site S-74 prior to shipment offsite for disposal. Soils, contaminated by spent pickle liquor are excavated and loaded into 55-gallon drums and transferred to Site S-74 and stored until arrangements for offsite disposal can be made.

Removal of Waste Inventory

At closure, all drums in Site S-74 would be transported offsite for disposal at a secure landfill. Because the waste managed is a hazardous material, hazardous waste manifests would be completed and retained in plant correspondence files as required. The manifest(s) together with the associated certificate of disposal would comprise the documentation necessary to demonstrate that the waste material has been properly disposed.

Procedures for Facility Decontamination

Because leaded steel dust and pickle liquor contaminated soil are brought to Site S-74 in sealed drums and because hazardous waste releases are routinely contained and corrective action implemented in accordance with Cuyahoga Plant's "Contingency Plan for Emergencies Involving Hazardous Waste Materials," it is unlikely that facility decontamination procedures other than removal of all drums would be required.

Once the inventory of drums has been removed, an independent registered professional engineer will conduct an onsite inspection of S-74, will examine all waste manifests and other available documentation of the operating record of S-74, and will interview plant personnel responsible for maintaining/operating S-74. The Engineers' responsi-

bility will include certifying that all wastes, including spilled materials have been removed and properly disposed. If in the opinion of this professional engineer there is evidence of site contamination, an investigation of the suspected area would be undertaken to determine the extent of contamination. Based on the subsequent findings, appropriate remedial measures would be implemented.

Closure Certification

During closure activities, an independent registered professional engineer will inspect Site S-74 as necessary to ensure that closure is in accordance with the approved closure plan. Certificates attesting to the proper closure of Site S-74 will be submitted to the Ohio EPA and USEPA by both the independent professional engineer and the appropriate USSC authority.

Closure Plan for Spent Pickle Liquor Storage Tanks
Site S-71
EPA I.D. No. OHD 004220810
United States Steel Corporation
Cuyahoga Plant
Cuyahoga Heights, Ohio

General Facility Description

United States Steel Corporation (USSC) has operated a spent pickle liquor storage facility, designated as Site S-71, within the Cuyahoga Plant boundaries from October 1980 to the present. USSC is permitted under interim status regulations, Hazardous Waste Permit No. 02-18-0091, to operate Site S-71 and other hazardous waste facilities within the Cuyahoga Plant. Storage Site S-71 is used for the temporary storage of all spent pickle liquor generated within Cuyahoga. All spent pickle liquor subsequently is shipped offsite for disposal or use as a treatment chemical in a POTW.

Site S-71 consists of four 40,000-gallon carbon steel storage tanks lined with acid-resistant brick and rubber, a pump house, two fiberglass spent pickle liquor collection tanks (approximately 1,000-gallon each) and transfer pumps, rubber-lined interconnection piping, and an acid loading area. The four storage tanks are located on bare ground covered with crushed slag within a 70 x 100 foot area adjacent to the operating facilities. One of the four carbon steel storage tanks has been removed from service and is not expected to be rebuilt in the future.

Waste Characterization

The waste stored in the two collection tanks and carbon steel storage tanks is spent acid, primarily sulfuric and some hydrochloric, from the pickling of steel. Spent pickle liquor is a listed EPA hazardous waste (K062). The characteristics for which this waste is listed are corrosivity and EP toxicity. Lead and hexavalent chromium are the hazardous constituents of concern.

Maximum Waste Inventory

At any time during the life of the facility, the maximum inventory of waste in storage would be approximately 162,000 gallons including the four storage tanks and both fiberglass collection tanks. However, because one of the four storage tanks is out of service, the available storage capacity is 122,000 gallons. Typically, offsite shipments of spent pickle liquor have averaged about 200,000 gallons per month.

Normal Operating Procedure

Spent pickle liquor is generated as a waste product from steel pickling operations conducted at two separate facilities within Cuyahoga Plant:

- No. 1 Wean Cleaner in the Cold Rolled Department
- No. 5 cleaner in the Wire Mill

Pickle liquor is wasted from the No. 1 Wean Cleaner on a continuous basis and flows by gravity to two 1,000-gallon fiberglass storage tanks. Automatic controls and manual override operation are available to periodically pump down the tanks and transfer the spent pickle liquor to the four storage tanks. Pickle liquor from the No. 5 cleaner is wasted in a different manner. When the pickle liquor capacity is exhausted, the entire contents of the process dip tank is batch dumped. A set of pumps are activated manually to transfer the contents of the process dip tank directly to the storage tanks.

Under normal operating conditions, the carbon steel storage tanks are periodically emptied with the spent pickle liquor pumped into tank trucks and subsequently transported offsite for reuse in a POTW. Typically, all spent pickle liquor is shipped to the Northeast Ohio Regional Sewer District for use as a chemical in the treatment of wastewater. In the event that the Regional Sewer District is unable to

accept spent pickle liquor shipments, the material is shipped offsite for disposal by deep well injection (Chemical Waste Management, Vickery, Ohio disposal site).

Removal of Waste Inventory

At closure, the following steps will be taken to remove all spent pickle liquor from the Cuyahoga Plant:

1. Spent pickle liquor in process dip tanks at No. 5 cleaner and No. 1 Wean Cleaner will be wasted and pumped to the storage tanks.

2. Fiberglass collection tanks serving No. 1 Wean Cleaner will be emptied and contents pumped to the carbon steel storage tanks.

3. The carbon-steel storage tanks will be pumped out as completely as possible and the contents transferred to tank trucks.

4. The tank trucks will haul the spent pickle liquor offsite for reuse in a POTW.

Procedures for Facility Decontamination

After all waste inventory has been removed, the following steps will be taken to decontaminate Site S-71 and related facilities.

1. Flush the pipeline from the No. 1 Wean Cleaner pickle tank to the two 1,000-gallon fiberglass collection tanks with clean water. Pump this rinse water to the carbon-steel storage tanks. Repeat process a total of three times.

2. Rinse both fiberglass tanks and flush the pumps with clean water. Pump rinse water to the carbon steel storage tanks.

As part of the closure activates for Site S-71, an independent registered professional engineer will conduct an onsite inspection of S-71, examine waste manifest of final spent pickle liquor and rinse water shipments, and interview plant personnel responsible for maintaining/operating S-71. The engineer's responsibility will include certifying that closure is in accordance with the approved closure plan. If in the opinion of the professional engineer there is evidence of ground contamination in the vicinity of Site S-71 then an investigation of the suspected area would be undertaken to determine the extent of contamination. Based on the subsequent findings, appropriate remedial measures would be implemented. However, it is unlikely that the site is contaminated because pickle liquor releases are routinely contained and corrective action implemented in accordance with Cuyahoga Plant's "Contingency Plan for Emergencies Involving Hazardous Waste Materials."

Closure Certification

During closure activities, an independent registered professional engineer will inspect Site S-71 as necessary to assure that closure has been performed in accordance with the specifications of the approved closure plan. Certificates attesting to the proper closure of Site S-71 will be submitted to the Ohio EPA and USEPA by both the independent professional engineer and the appropriate USSC authority.

Closure Plan for Spent Pickle Liquor Storage Tanks
Site S-71
EPA I.D. No. OHD 004220810
United States Steel Corporation
Cuyahoga Plant
Cuyahoga Heights, Ohio

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Waste Characterization

The waste stored in the two collection tanks and carbon steel storage tanks is spent acid, primarily sulfuric and some hydrochloric, from the pickling of steel. Spent pickle liquor is a listed EPA hazardous waste (K062). The characteristics for which this waste is listed are corrosivity and EP toxicity. Lead and hexavalent chromium are the hazardous constituents of concern.

Maximum Waste Inventory

At any time during the life of the facility, the maximum inventory of waste in storage would be approximately 162,000 gallons including the four storage tanks and both fiberglass collection tanks. However, because one of the four storage tanks is out of service, the available storage capacity is 122,000 gallons. Typically, offsite shipments of spent pickle liquor have averaged about 200,000 gallons per month.

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3. The carbon-steel storage tanks will be pumped out as completely as possible and the contents transferred to tank trucks.

4. The tank trucks will haul the spent pickle liquor offsite for reuse in a POTW.

Procedures for Facility Decontamination

After all waste inventory has been removed, the following steps will be taken to decontaminate Site S-71 and related facilities.

1. Flush the pipeline from the No. 1 Wean Cleaner pickle tank to the two 1,000-gallon fiberglass collection tanks with clean water. Pump this rinse water to the carbon-steel storage tanks. Repeat process a total of three times.

2. Rinse both fiberglass tanks and flush the pumps with clean water. Pump rinse water to the carbon steel storage tanks.

Repeat process a total of three times. Alternate pump operation to assure flushing of both pumps and related valving and piping.

3. Flush the piping between the plastic tanks and steel storage tanks with clean water. Transfer all rinse water to the steel storage tanks. Piping will be flushed sufficiently to assure that only clean water remains in low spots of piping runs.

4. Using similar procedures flush the pipeline and pumps leading from the Process Dip Tank on the No. 5 cleaner to the steel storage tanks, making certain that both pumps are operated. Transfer all rinse water to the steel storage tanks. Piping will be flushed sufficiently to assure that only clean water remains in low spots of piping runs.

5. Pump all rinse water collected in the carbon-steel storage tanks into tank trucks. All rinse water will be transported offsite for disposal by deep well injection.

6. Once the storage tanks have been pumped out to the extent possible by the existing equipment, the access ports will be removed from each storage tank to facilitate decontamination. All liquid and solid waste materials found in the tanks will be removed and loaded into vehicles and transported offsite for disposal either for landfilling or deep well injection.

7. Each tank interior will be rinsed three times with clean water and pumped into tank trucks for offsite disposal. As part of the process, each tank's outlet pipes and valves as well as the pumps in the pump house will be thoroughly flushed.

The total amount of rinse water from cleaning operations is estimated to be approximately 22,500 gallons. All rinse waters will be transported offsite for disposal by deep well injection (Chemical Waste Management, Vickery, Ohio Disposal Site).

OhioEPA
State Of Ohio Environmental Protection Agency

Northeast District Office
2110 E. Aurora Road; Twinsburg, Ohio 44087-1969
(216) 425-9171

Richard F. Celeste, Governor

July 24, 1986

RE: U.S. STEEL CORPORATION
CUYAHOGA WORKS
CUYAHOGA COUNTY
OHD 004-220-810
#02-18-0091

U. S. Steel Corporation
One Tech Center Drive
Monroeville, Pennsylvania 15146

Attn: Mr. J. David Moniot

Dear Mr. Moniot:

This Agency needs to complete a formal Closure Plan review and processing of closure activities for the hazardous waste storage facilities at the old Cuyahoga Works in Cuyahoga Heights. Since the facility was purchased recently by American Steel Wire, you will need to inform us regarding which company maintains liability for the facility and which company will handle the closure activities.

Please respond within 30 days of receipt of this letter so that we can finalize closure of the storage areas. If you have any questions please contact me at (216) 425-9171.

Sincerely,

Donald F. Easterling
Environmental Scientist
Division of Solid and Hazardous Waste Management

DFE/sp

U.S. Steel-Cuyahoga Works or American Steel Wire
OHD 004-220-810
#02-18-0091

Review Comments for Closure Plan submitted May 2, 1984

1. A short, generalized description of the facility is needed. This should include the type of industry, products, location and size of the facility.

2. The description of the units to be closed should include a map showing the location of the units and should describe the soil types and topography.

3. Detailed drawings of the waste acid storage tanks should be provided. This should include appurtenant structures such as pipes, sumps, auxiliary tanks, etc.

4. A closure schedule is needed.

5. The plan must describe the measures that will be taken to protect personnel during closure activities.

6. Cost estimates should be included in the plan.

7. For waste inventory which has already been removed, the plan should indicate where the final shipment went.

8. The need for sampling and decontamination of soils can not be left to the discretion of the engineer. Sampling is required in order to evaluate the need for decontamination and confirm clean closure. The closure plan should specify the number of soil samples to be collected, the location and depth of the samples, the sample collection and analysis methods, and the parameters to be determined. The plan should also specify a clean level. One commonly used method for metals is to specify that these constituents will not exceed the mean of the background levels plus two standard deviations. For solvents, no detectable residues should be left in the soils.

9. The planned future use of the waste units (such as storage $\measuredangle$90 days) should be clarified.

10. The steps and equipment necessary for decontamination of the waste management areas must be described. Also, clean-up and/or disposal of the decontamination equipment should be described.

Reviewed by: Donald F. Easterling
Date completed: September 9, 1986

DE/sp